

## RECORDED BENEFITS

- Real-time biofilm measurement
- Significantly reduced bacterial counts
- Improved cleanliness of cooling tower surfaces
- Reduced corrosion

## Pulp Mill Benefits From Improved Cooling Tower Microbiological Control Program

### ClearPoint<sup>SM</sup> Biofilm Detection and Control Program

#### Customer Challenge

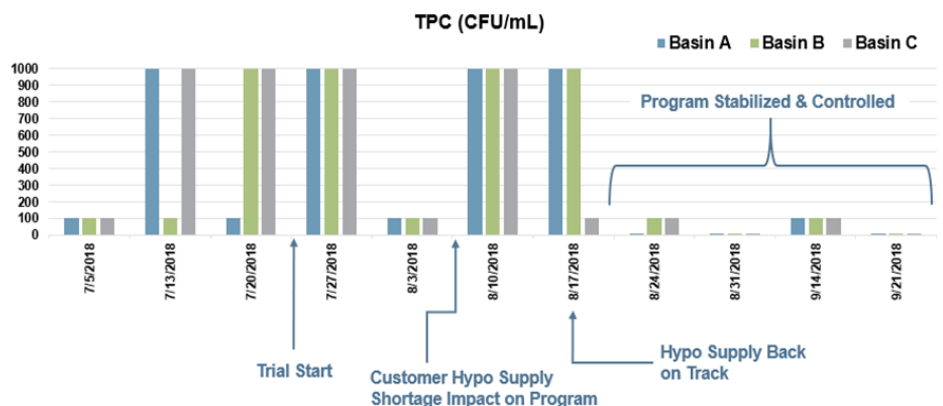
A Brazilian pulp mill achieved successful microbiological (MB) control in its large cooling tower with a first-generation chloramine technology. While chemical and biological control was considered very good, the mill was interested in continuous improvement using alternative chemistries to lower corrosion rates and to further reduce costs.

#### Recommended Solution

Solenis recommended its ClearPoint<sup>SM</sup> biofilm detection and control program, which includes an OnGuard<sup>TM</sup> 3B analyzer, a patented MB control chemistry—Biosperse<sup>TM</sup> NT3195 chlorine stabilizer—and Solenis' superior service. ClearPoint detects and measures real-time biofouling and corrosion and automatically adjusts chemical feed as required, increasing the ease of application and precision of the chemistry.

#### Results Achieved

- Enhanced selectivity of bacterial kill significantly lowered the bacterial counts from  $10^3$  CFU/mL to  $10^2$  CFU/mL
- Cooling tower surfaces were visibly cleaner with significantly reduced algae and biofilm growth
- Reduction in general corrosion rates
- Eliminated unplanned maintenance shutdown on heat exchangers
- Chemical treatment costs were reduced by \$25,000/year
- Sodium hypochlorite consumption was reduced by 7%



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